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SCHOOL BUS DRIVER IMPROVEMENT PROGRAM



COURSE MANAGER ORIENTATION

NOTE

This course is designed for the improvement of knowledge and skills of drivers at all levels of competence; it is not intended as instruction leading to the licencing of drivers at the Class II and Class IV levels. For that information, please refer to the Alberta Operators' Manual.



SCHOOL BUS DRIVER
IMPROVEMENT PROGRAM

COURSE MANAGER MANUAL

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SCHOOL BUS DRIVER IMPROVEMENT PROGRAM

COURSE MANAGER MANUAL

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WHY TRAIN YOUR DRIVERS?

Driver training is everyone's responsibility. It doesn't rest solely with the driver, nor should it be assumed that a properly licensed driver is a properly trained driver. A good driver requires knowledge, skill, experience and a positive attitude. Many drivers will have some of these attributes but others will have to be specifically taught.

The benefits of proper driver training are many; some are obvious but others are not. They include:

- (1) Fewer deaths and injuries.
- (2) Fewer collisions and less property damage.
- (3) Lower insurance rates.
- (4) Less down time for vehicles.
- (5) Lower maintenance cost.
- (6) Better relations with passengers and public.
- (7) Happier, more confident drivers.
- (8) More efficiency.
- (9) Fewer administrative difficulties.
- (10) Lower staff turnover.
- (11) Reduced opportunity for civil liability in the event of a collision.
- (12) Reduced operating costs (see fuel efficiency).

"Proper" training is not solely "on-the-job" training; it must have other elements. After all, even a driver with 10 years' experience may forget to cover important points with a trainee or, an important incident may not arise during the "on-the-job" training period. There is also the possibility that the experienced driver has acquired bad habits or short-cuts or that he/she was never properly trained for in the first place. All these reasons make it necessary to include in driver training, a package which ensures that each driver start with a minimum acceptable base of information. This training program, in part, attempts to do that but because the program is provincial in scope, it does not include local policies and procedures. It is left to each company or organization to supply information of a local nature to its drivers.

ANOTHER REASON FOR DRIVER TRAINING - FUEL EFFICIENCY

Safe, smooth driving techniques help reduce fuel cost as well as improve safety. Most drivers can get a 10% reduction in fuel consumption -- some as much as 25% -- using these techniques:

1. You're \$\$\$ Ahead With a Good Attitude. Safe, fuel-efficient driving is consistently steady. The skilled driver is relaxed, alert, resists the temptation to hurry, respects the rules of the road, is courteous, and drives in a way that prevents collisions.
2. Smooth Driving Saves \$\$\$. Looking well ahead gives you space to slow down, accelerate or change lanes safely and smoothly. Avoiding sudden speed changes saves fuel.

On a vehicle with a manual transmission, run through the lower gears smoothly and quickly and build up speed in the higher gears for maximum fuel economy. An automatic transmission will actually shift up earlier if you reduce pressure on the accelerator pedal as you gain speed.

When approaching a hill, gradually accelerating before the point where the vehicle would normally start to slow down (without exceeding the speed limit) can avoid hard acceleration on the up-grade. Instead of flooring the accelerator to maintain speed, allow the speed to drop off and shift to a lower gear if necessary. When driving down hills ease up on the accelerator and let gravity maintain or increase the vehicle's speed to save fuel.

3. A Little Time Saved...a Lot of \$\$\$ Lost. High speed increases the potential for collisions and increases fuel consumption. Vehicles operate most efficiently at moderate, steady speeds -- and last longer too. Fuel economy declines sharply over 90 km/h.
4. Consider Road Conditions and Save \$\$\$. Weather, road and traffic conditions may necessitate a lower speed for safety and fuel economy. Whenever possible, drive the route with the best road conditions, less traffic and fewer stops, even if it's a little farther to go.

5. Idling Gets You Nowhere...Fast. Idling wastes fuel and money. Even at -20°C most vehicles require less than two minutes if idling — provided windows are clear of fog or frost — before being driven away smoothly. In vehicles with an automatic transmission, the fast idle should be off before driving away when roads are slippery. On warmer days, you can just start and go.

Racing the engine is not recommended. It wastes fuel (money) and strains the engine — especially when it is cold.

6. Air Saves \$\$\$...and Lives. Properly inflated tires reduce rolling resistance, fuel consumption and tire wear and are safer. For safety and savings know your correct tire pressure and check it regularly.
7. Keeping Your Vehicle Maintained Saves \$\$\$. Regardless of how well a vehicle is driven, only one that is properly maintained can be fuel efficient and safe. This includes correctly adjusted air/fuel ratio, idle speed and ignition system and the use of the right grade of oil for your vehicle and driving conditions. Maintenance checklists for drivers are shown in Series 2.

Additional publications on vehicle fuel saving topics are available from:

Alberta Energy and Natural Resources
Energy Conservation Branch
2nd Floor, Highfield Place
Edmonton, Alberta
T5J 3L8

Phone: 427-5200

PROGRAM OVERVIEW

The School Bus Driver Improvement Program is designed for both new and current bus drivers. It can also be used by those who have never driven a bus (or any heavy vehicle), but are interested in learning to become a bus driver.

The purpose of the program is to help participants develop the skills necessary to operate and manoeuvre a school bus; gain knowledge of student procedures in loading, unloading, and riding on the bus; and learn techniques for dealing with programs and emergencies which may effect the safe operation of the bus.

The program has been designed to be as flexible as possible, giving the participant control over his responsibility for learning and skill improvement. Because the skill level and prior experience of participants will vary, it is necessary for each driver to undertake in detail only those series which are appropriate to his needs. The rest of the text material should be read and treated as an update and review.

On selecting a series, the participant works through each module of the series in turn, reading or practicing as long as necessary to become competent in the skills covered in the module. He then proceeds to the module next in the series after demonstrating his competence in the one just completed.

As a Course Manager for the School Bus Driver Improvement program, it is essential that you become thoroughly familiar with the material covered in each of the five series in this manual. In doing this, we are confident that you will find the course covers all material relevant to the job in a systematic and easy-to-use fashion that will ultimately make your job easier, more interesting, and more rewarding.

PROGRAM DESCRIPTION

Purpose of the Program

The purpose of the School Bus Driver Improvement Program is to help participants to:

- develop skills necessary to operate and manoeuvre a school bus;
- gain knowledge of procedures for loading, unloading, and transporting students;
- learn skills for dealing with problems or emergencies which may arise in the normal operation of the school bus.

Development in these three vital areas is one key way in which the potential for serious crashes can be minimized and the job be made an enjoyable one.

Who Should Take the Program

The program has been designed to be as flexible as possible, making it equally appropriate for both new and experienced school bus drivers.

The program will also be of great interest to people who want to become school bus drivers, even if they have never driven anything larger than the family car.

How the Program is Set Up

This program is designed to be learner oriented and attempts to get away from the commonly accepted notion that a course is taught by an instructor who serves as the chief dispenser of knowledge and information. This learner orientation - rather than instruction orientation - is very much what drivers and fleet supervisors who participated in the program's development stressed they wanted.

Focusing on skill development, the program allows a participant to select a particular series of modules and proceed through it at his own pace, deciding for himself when he is ready to demonstrate his competence in performing the skill described in the pre-stated objective. How much time he requires to complete a given module is up to him keeping in mind only local constraints (planned demonstrations, availability of facilities, etc.). What is important is that the driver, or prospective driver, become competent at a particular skill or set of skills, and not that he completes the program within a given time. Consequently, when a person completes a module or series by demonstrating the appropriate performance, we say that he is "competent" at that particular skill. When he is unable to perform as required, we say that he is "not yet competent" (not that he has failed or is substandard, etc.). If a person cannot perform as is required (i.e., by meeting the criteria specified in the module objective), it is necessary that he receive further practice or assistance until he becomes competent. After he attains competence, he is certified by the Course Manager as having completed the module and he moves on to the next one.

This learning approach is particularly applicable in situations such as bus driving where the development of skills is the important factor, not the acquisition of information within a certain time period. Further, this approach does not require a set number of individuals to take the same amount of time.

How the Program is Structured

The School Bus Driver Improvement Program consists of the following five series.

- Bus Operation Manoeuvres
- Bus Inspection and Maintenance
- Loading, Unloading, and On-Bus Procedure
- Professional Driving Skills
- Emergency and Collision Procedures

Each series consists of one or more "modules", which may be thought of as self-contained, bite-size units of learning, which deal with a particular skill or set of related skills. The relationships between the series and modules of the program are illustrated on the Course Map (Figure I). The arrows between the "module circles" show the recommended order for proceeding through the program for a person who wants to take all the series. Such an individual would begin with series one, then go on to the other series in any order that is convenient in terms of demonstration constraints, taking the individual modules within each series in the order indicated.

SCHOOL BUS DRIVER IMPROVEMENT PROGRAM - COURSE MAP

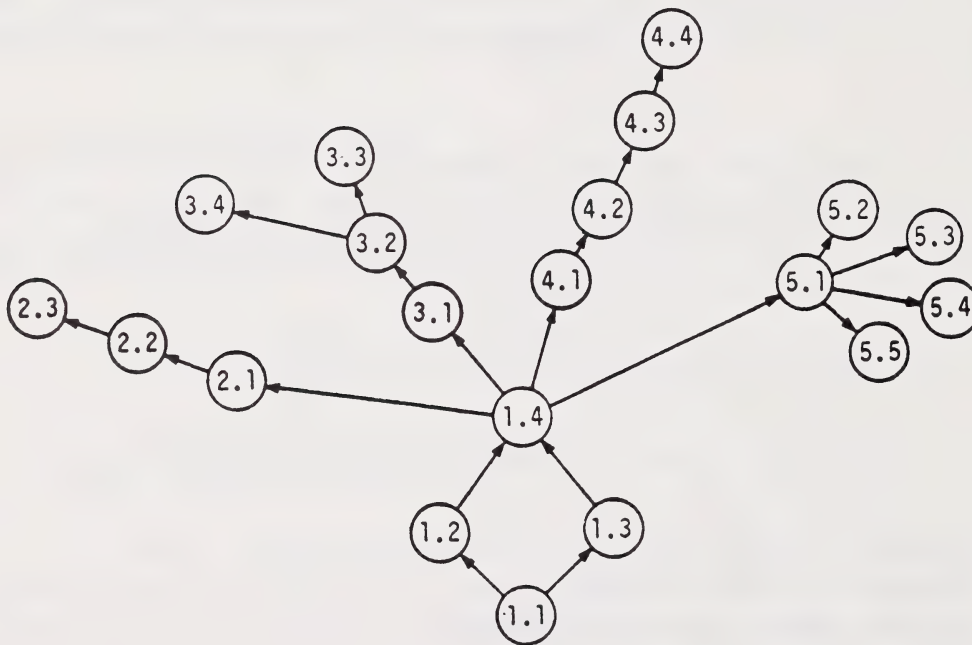


FIGURE I

All modules within the program are organized in the same manner, containing the following components:

1. An Objective, which describes the specific skills to be performed upon completion of the module.
2. A Sample Skill Check, which shows how the driver's performance in meeting the Objective will be evaluated when he feels he is ready.

The Objective and Sample Skill Check are presented at the beginning of each module for a specific reason. It is important that the person undertaking the module understand from the start what is expected of him. It serves no purpose whatsoever, if the concern is really skill development, to define the expectations at the end by springing a "test" on the person. This program isn't like a traditional course, where a certain percentage of "failures" are required to ensure the material is challenging. The concern is with performance on the job ... therefore, NO SURPRISES.

3. Module Text. This is the actual descriptive material (or theory) which is intended to complement the demonstrations and practice sessions, and is included to help the driver acquire the desired skills.
4. Practice Exercise. Throughout the module, practice exercises are inserted regularly to allow the driver to practice what he's learned before moving on. Frequent practice on small chunks of material makes learning much easier.
5. Overall Skill Check. This is used by the driver to test his performance on meeting the Objective when he feels ready to take it. You will notice that the Overall Skill Check mirrors very closely to the Sample Skill Check found at the beginning of the module. Again, no surprises. The participant knows what is expected and practices until he feels confident.

6. Self-Evaluation Sheets. Where appropriate, the Course Manager will be supplied with Self-Evaluation sheets, which he can go over with the participant after the participant has taken the Overall Skill Check to determine if he has performed as required. If, on going over the self-evaluation sheet, the participant and Course Manager are satisfied with his performance, the Course Manager will certify that the participant has completed the module by initialling the Personal Progress Summary and checking the Master Progress Chart.

Note that many of the modules do not have accompanying self-evaluation sheets, due to the nature of the Skill Check (i.e., there may be no single correct answer). In such cases, the Course Manager will be required to evaluate the participant's performance while it is being demonstrated. The evaluation sheets for such modules describe criteria for performance evaluation, rather than acceptable performance itself.

MANAGING THE SCHOOL BUS DRIVER IMPROVEMENT PROGRAM

Important Elements of the Program

In organizing the School Bus Driver Improvement Program, there are a number of things - resources, facilities, people - required. These are as follows:

1. Course Manager
 - Depending on the size of the school jurisdiction, this could be a full-time person, responsible for training; or the school jurisdiction's fleet supervisor could assume responsibility for training. The Course Manager will be required to co-ordinate the operation of the program - to "make it all happen".

2. Course Material

- In addition to the Course Manager's Manual, Course Manuals are available containing the five series of the course. They are prefaced with an "About the Program" section explaining the course to participants, and contain copies of "Exterior Inspection and Outside Light and Signal Check", "Suggested School Bus Driver Inspection Form", "On-the-Road Operating Check Points", and "Personal Program Summary". These are to be filled in by the driver at the start of the course and checked off by the Course Manager on the completion of each module.
- Questions and answers relating to each series will be contained in the Bus Driver's Course Question Book.
- Further Master Progress Charts, which allow the Manager to plot the progress of program participants, will be provided as needed.

3. Equipment and Facilities

- The viewing of films and the holding of group sessions will necessitate the availability of an "appropriate" meeting hall. "Appropriateness" is determined by the number of participants in the program, the availability of such facilities in local school jurisdictions, etc.

4. School Buses

- The program is designed to be as performance oriented as possible and, therefore, requires that course participants have reasonable access to school buses to practice and develop their skills.

5. Resource People

- Certain modules within the program require specific skills to be demonstrated to course participants by "experts". The experts vary depending on the subject area under discussion, but could include: a fire department representative, an experienced school bus driver, a safety education representative, etc.

- The Course Manager is required to arrange the demonstrations to meet the module requirements. In each case it is critical that the special resource person participate as specified by the module requirements, rather than delivering interesting (but not always relevant) lectures from their fields of specialization.
- Specific module requirements for special resource persons are outlined below under the heading "Notes on Series".

6. Resource Material

- Ideally, you will want to obtain films, slide sets, tapes, etc., relevant to the material in the course, for use by individuals and groups. A list of some useful resources is available for this purpose (at the end), and it is hoped you will add to it.

Role of the Course Manager

Within the School Bus Driver Improvement Program, the role of the Course Manager is considerably different from that of an instructor in a traditional course, who typically functions as a "giver" of information. While this may be a small part of the Course Manager's role, he can best be described as a person who tries to help course participants attain their objectives. In doing this, his functions include:

- being a resource person, answering questions, and consulting with participants on course materials and learning experiences;
- Motivating individuals within the program and providing encouragement in a positive learning environment;
- providing suitable facilities in which participants can meet throughout the program for discussions, demonstrations, films, and other presentations;
- arranging for and providing resources to the program, including: course manuals, films, special resource people, equipment, and school buses;

- conducting demonstrations or instructing portions of the program;
- monitoring participants' performance and providing appropriate feedback.

You can see from the above list that the role of the Course Manager is far broader than "instruction". It is really the management of a variety of resources directed toward the achievement of individual and school jurisdiction objectives.

Organizing the Program in a School Jurisdiction

The tasks required of the Course Manager in organizing and running the program are as follows. They are summarized in Figure II.

1. Familiarization with Material

- Given that your school jurisdiction can provide the important elements of the program, your first task as Course Manager is to completely and thoroughly familiarize yourself with the program materials, their format and use.

2. Facilities Arrangement

- Even before the course begins it is necessary to arrange for a place to meet, and for course materials to be on hand. Other things needed for the carrying out of the course include resource people and school buses as indicated earlier.

3. Initial Group Program Session for Organization of Participants

- The primary purpose of the initial group session is to acquaint participants with the program (its purpose, content, format, etc), attend to housekeeping and administrative matters, and distribute program material.

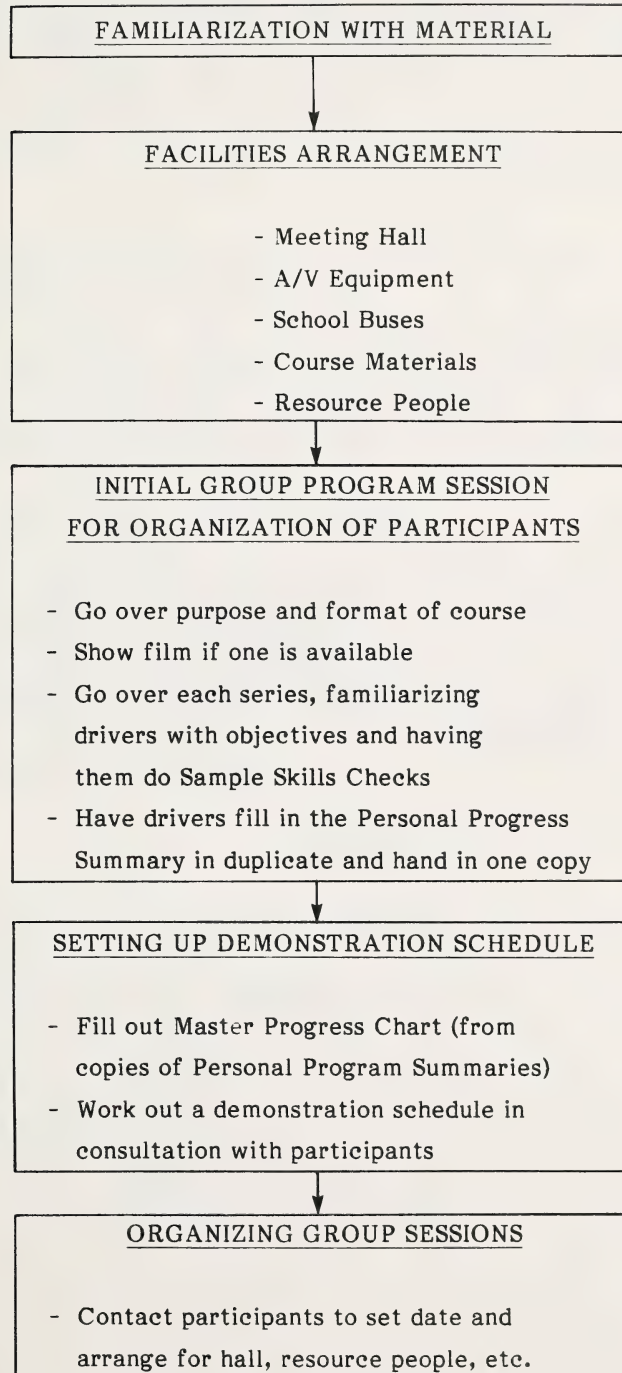
4. Setting up Demonstration Schedule

- Working from the Master Progress Chart (Figure III), and in consultation with appropriate participants, you will set up demonstration sessions. These sessions will include participant evaluation when the participant feels ready.

5. Organizing Group Sessions

- Demonstrations may be done with one or any number of individuals. In some cases - such as with modules in which a lot of participants are involved and the material requires it, or a special resource person has been arranged for - a large group session is called for. One very good reason for conducting group sessions from a participant's point of view, is to provide a good change of pace to the individual learning in the rest of the program. Such sessions allow participants to share experiences and deal with any problems which may arise. You can vary the number of these sessions to meet your local requirements, but keep in mind that they should meet a specific purpose and not be held for their own sake.

FIGURE II



NOTES ON SERIES

Following are brief comments on the five series in the School Bus Driver Improvement Program, highlighting the purpose of each and any other issues of which you should be aware.

Series #1 - Bus Operation Manoeuvres

The modules in this series are intended to help the inexperienced driver develop a variety of basic bus driving skills. It can also serve as a useful refresher for more experienced drivers if desired, but many feel put down if forced to work through this series when they have already been performing satisfactorily as a bus driver for some time. Be aware of this during the process of series selection; drivers should be encouraged to take this series, but not in detail if it will be a waste of time to them.

Modules 1.1 and 1.3 of this series describe the "theory" of basic manoeuvres and are designed to give the participant an understanding of the bus driving process. Modules 1.2 and 1.4 involve actual demonstration of the techniques by a qualified bus driver (possibly the Course Manager) to one or more participants, followed by practice sessions for the participants. As Course Manager, you will be responsible for planning the logistical requirements of these two modules.

Series #2 - Bus Inspection and Maintenance

This series focuses on the requirement for and the routine and techniques of daily and weekly inspections of the school bus. It is intended for all bus drivers, even those who know how to carry out the procedures described. Checklists and job aids have been incorporated into the material as a key tool in helping the bus driver make the inspections part of his regular routine. As in modules 1.2 and 1.4, modules 2.1 and 2.2 require demonstration of the procedures. This is the ideal opportunity to stress and reinforce the use of the checklists by the drivers to combat the negligence which is usually responsible for failure to conduct inspections properly.

Series #3 - Loading, Unloading, and On-Bus Procedure

This is a comprehensive series dealing with loading, unloading and transporting students. It covers everything from manoeuvring the bus to procedures for loading and unloading students. In dealing with problems that may arise, it presents the roles and responsibilities of all involved in the busing process. Demonstration is used for manoeuvring procedures, while a group discussion is required in considering student management.

Series #4 - Professional Driving Skills

This is a more advanced version of Series #1 and is directed primarily at the experienced school bus driver. Skill areas dealt with include collision avoidance, hazard avoidance, commentary driving, and various emergency driving techniques.

Series #5 - Emergency and Collision Procedures

The full range of potential collision and emergency situations are described and techniques taught to deal effectively with them. The focus is on how to use emergency equipment, bus evacuation, first aid (shock, bleeding, and stopped breathing), and winter survival. There are good films for use in this series, and the demonstration of techniques and procedures is required for the series.

MASTER RESOURCE LISTING

NAME	SUBJECT	MEDIUM	SOURCE
1. ARE YOU WARM TO THE TOUCH	Shows how consciousness of the road relates to defensive driving	16 mm; 16 minutes colour	Department of Extension Educational Media Div'n University of Alberta Corbett Hall, 82nd Ave., 112 Street Edmonton T6G 2G4
2. DEAD ON THE LEVEL	Deals with level crossing	16 mm; 10 minutes colour	as above
3. DEFENSIVE DRIVING TACTICS	A comparison of defensive and offensive drivers	16 mm; 13 minutes colour	as above
4. DRIVING HIGHWAYS AND FREEWAYS	Main considerations of highway and freeway	16 mm; 10 minutes colour	as above
5. DRIVING UNDER SPECIAL CONDITIONS	A safe driver is able to drive under all conditions	16 mm; 15 minutes black and white	as above
6. FATAL STOP	The importance of pretrip bus inspections	16 mm; 25 minutes colour	as above
7. A NEW WAY TO DRIVE	Promotes defensive driving	16 mm; 16 minutes colour	as above
8. THAT THEY MAY LIVE	Latest methods of artificial respiration and their applications	16 mm; 27 minutes colour	as above
9. WINTER DRIVING	Shows starting, stopping and cornering in winter, installing chains, etc.	16 mm; 24 minutes colour	as above
10. BREATH OF LIFE	Demonstrates mouth-to-mouth resuscitation	16 mm; 17 minutes colour	Film Library Government Services Queen's Printer 11510 - Kingsway Ave. Edmonton
11. BROKEN BUS	Demonstrates collisions with school buses	16 mm; 15 minutes colour	as above
12. A MATTER OF JUDGEMENT	Shows importance of alertness in merging, skids, hydroplaning, etc.	16 mm; 25 minutes colour	as above

MASTER RESOURCE LISTING

NAME	SUBJECT	MEDIUM	SOURCE
13. HELP IS	Roadside first-aid	16 mm; 16 minutes colour	National Film Board Centennial Building 10031 - 103 Avenue Edmonton T5J 0G9
14. YOU ARE FIRST ON THE SCENE	Roadside first-aid	16 mm; 18 Minutes colour	St. John Ambulance
15. DEATH ZONES	Danger Areas near a bus	166 mm; colour	Dept. of Extension Educational Media Div. Univ. of Alberta Corbett Hall, 82 Ave. 112 Street Edmonton; T6G 2G4
16. ATTITUDE FACTOR	Driver Attitudes and their relationship to crashes	16 mm; 30 minutes colour	as above
17. DRIVING IN THE COUNTRY	School Bus Driving Country	16 mm; 30 minutes colour	as above
18. DRIVING IN THE CITY	School Bus Driving City	16 mm; 30 minutes colour	as above
19. THINKING ABOUT SCHOOL BUS SAFETY	School Bus Safety Rules	16 mm; 12 minutes colour	AAA Foundation

COURSE MANAGER'S CHECK LIST

The five series contain a variety of information necessary for the training of school bus drivers. This information is of a general nature and should be localized to include policies and procedures that apply specifically to your area.

To help you to ensure that your training program is complete, the following check list should be used with each driver to ensure that you have covered all important areas.

- Assign Series 1 to 5.
- Discuss review questions for each series with driver.
- Point out location of emergency equipment.
- Discuss radio procedure.
- Discuss seat belt policy for drivers.
- Review company policy relating to school bus operations.
- Review company policy relating to drivers.
- Review collision procedures and information required.
- Complete "On the road" evaluation (vehicle empty).
- Complete "On the road" evaluation (with passengers).

Training is an on going procedure. A "once in a lifetime" course will yield only limited results. Be sure to keep your drivers up to date on any changes in procedure, policy or legislation and encourage retraining on a regular basis.

SELF-EVALUATION AND PERFORMANCE CRITERIA

FOR OVERALL SKILL CHECKS

NOTE: Included in this section are answers to Overall Skill Check questions and criteria for evaluating performance where a skill is to be demonstrated.

The former are called SELF-EVALUATIONS and are to be shared with course participants; the latter are presented as NOTES TO COURSE MANAGER and are intended as criteria by which skills demonstrated are to be evaluated, where appropriate.

It should be stressed that answers given in many cases are intended only as guidelines. Situations are too varied and the job too complex to consider all possibilities, and discussion of answers can serve a useful function in the learning process.

BASIC BUS DRIVING MANOEUVRES

SELF-EVALUATION

1. When following:
 - o oversized vehicles which obscure your vision
 - o gasoline or inflammable explosive carriers
 - o vehicles that stop frequently
 - o two-wheeled vehicles
 - o vehicles carrying protruding loads
 - o vehicles being driven irrationally
 - o emergency vehicles
 - o on wet or icy roads
 - o under conditions reducing visibility
 - o where traffic intersects, merges, or converses

2. 5 metres; permit a full view of pedestrians and traffic coming from both sides.

3.
 - a. true
 - b. true
 - c. true
 - d. true
 - e. false

4. Second.

5. before entering the turn.

6. Yield right-of-way to vehicles already on the road.

7. Watch the vehicle ahead of you pass some landmark or definite point on the highway; count to yourself "one-thousand-and-one, one-thousand-and-two, one-thousand-and-three, one-thousand-and-four". You should not pass the same landmark before you have finished counting.

8. driver reaction distance; vehicle stopping distance

9. $\frac{3}{4}$; 16.76 metres.

ADVANCED BUS DRIVING MANOEUVRESSELF-EVALUATION

1.
 - a. false
 - b. true
 - c. true
 - d. false
 - e. true
 - f. false

2.
 - o if the lead vehicle is signalling or otherwise indicating a left turn.
 - o if the lead vehicle is changing lane preparatory to passing himself.
 - o if the lead vehicle is weaving or wandering.
 - o if the lead vehicle is decelerating suddenly.
 - o if the lead vehicle is passing children, cyclists, or animals.
 - o if the lead vehicle is being passed by another vehicle.

3. If the passing vehicle attempts to abort the pass.

4. There may be unexpected movement from the car such as the door opening.

5. You would not swerve the bus if this would jeopardize the safety of the driver, passengers, or other motorists or pedestrians.

6. "High"; the big picture; your mirrors.

7. Set the park brake. This will provide at least some protection if the bus is struck from the rear.

STUDENT MANAGEMENT

SELF-EVALUATION

1. The driver should always set a good example for his passengers because his conduct will define acceptable limits for their behavior, and actions speak louder than words.
2. The competent school bus driver is proficient at:
 - (i) operating his school bus safely and efficiently at all times
 - (ii) creating an atmosphere of friendly cooperation among the students
3. Control.
4. Ask students their expectations and try to get a consensus.
5. Suggest a positive alternative, or at least avoid statements that are punishing, threatening, blaming, etc.
6.
 - a. false
 - b. false
 - c. false
 - d. true
 - e. false

7.
 - a. no
 - b. yes
 - c. yes
 - d. no

8. He would likely react in a defensive manner and resist ever whatever it is you are saying. Rather than hearing the content of your message, he would likely be focusing on the blaming aspects of your reprimand and any benefit you derive from such action would probably be of a short-term nature.

ROLES AND RESPONSIBILITIES IN STUDENT TRANSPORTATION

SELF-EVALUATION

1. (i) Teacher : frequently responsible for the supervision of loading and unloading of children in school yards. May act as chaperone during special field trips. By talking about safety in the classroom, could instill desirable attitudes and student conduct.
 - (ii) Fleet Mechanic : responsible to the bus fleet supervisor for school bus maintenance and repairs.
 - (iii) Bus Driver : responsible for the safe and efficient operation of the bus and for the passengers' safety.
 - (iv) Students : responsible to the driver for conducting themselves in a safe and courteous manner.
2. Elected School Board
Committees
Trustees
3. a. parent and/or student
b. driver
c. School Board; School Board
d. School Board (through the bus fleet supervisor)

4. The bus driver must not: (any 4 of)
- (i) drink an alcoholic beverage within a critical period of time prior to driving a school bus
 - (ii) smoke
 - (iii) drive the bus into a garage for service or fuel while there are passengers on board
 - (iv) leave the bus at any time without stopping the engine, setting the parking brake and removing the key
 - (v) back the bus on school grounds except on the direction of a responsible person
 - (vi) make any assignment of his contract.

COLLISION PREVENTABILITYSELF-EVALUATION

- 1.(a) (i) False. While the rain may have reduced visibility, and made the pavement slippery, you cannot blame the adverse conditions for the collision. You failed to adjust to these conditions, by slowing down sooner, allowing the car driver to pass. Also, had you slowed down sooner, the braking action of your bus might not have had the results it did have.
- (ii) False. You cannot base your driving on the premise that the driver in front of you is always going to give you clear and timely warning of what he is going to do. You yourself, must be responsible for being able to stop, if the vehicle in front stops suddenly.
- (iii) False. Although there may have been poor judgement on the part of the driver of the car to pass, you could have slowed down immediately when the car started to pass, making it easy for the car to pass. Your lower speed would have increased following distance and made it easier to stop safely.
- (iv) False. While the behavior of the driver of the car contributed to the collision, alert driving on your part would have prevented it.
- (v) True. Your defense against this type of crash is to maintain safe speed and following distance and stay alert for sudden stops.

You as a defensive driver should recognize the hazards. Rain was the first adverse condition evidenced by the fact that the bus slid on sudden brake application. The car passing -- and your failure to slow down to make it easy for the car to pass -- the school zone sign -- the time of day -- and the children standing at the curb -- should have acted as a further warning to you of the potential hazards that did exist.

- 1.(b) (i) False. The collision was preventable. The fact you gave the proper signal did not guarantee you the right of way to make the turn.
- (ii) False. The other driver should have responded to your signal. But, you should have checked behind to make sure the driver was aware of your signal and responding to it correctly.
- (iii) True.
- (iv) True. At least you would have been aware the other vehicle was there. It would then have depended on how close the vehicle was, and what his actions were, whether he was slowing to let you make your turn or attempting to pass before your turn was made.
- (v) False. Even though you give the proper turn signal, you have no assurance the other driver will obey it. The only way to be sure is look and check.

On left turns it is important to observe the following precautions:

- (i) Signal well in advance of the intersection at which you plan to turn.
- (ii) Check behind and ahead, then move as close as you can to the centre line without crossing it.
- (iii) Look to the rear, right, left and ahead, to be sure it is safe before starting your turn.
- (c) (i) False. Drowsiness is a quite -- often unrecognized -- collision cause. It can be controlled by being recognized as the hazard it is. You postponed doing anything about it until it was too late. The collision was preventable.

- (ii) False. Drowsiness is not always due to lack of sleep. Persons who regularly get the recommended amount of sleep each night can become drowsy behind the wheel.
 - (iii) True. When drowsy -- do something about it immediately. And the first thing to do is park your unit safely off the road.
 - (iv) False. The drowsiness may have been due to small amounts of carbon monoxide seeping into the driver's compartment but that does not make it a non-preventable collision. Drivers should always drive with windows sufficiently open to insure good ventilation.
 - (v) False. Slow driving could involve the asleep-at-the wheel driver in just as disastrous a collision as one occurring at greater speed. Moreover -- slowing one's speed might have the lulling effect necessary to turn a drowsy driver over the borderline to a sleeping driver.
- (d)
- (i) False. Very frequently a vehicle races up to a signalized intersection, hoping to get through before the amber light changes to red. When he doesn't make it in time, he sails through on the red. This is a dangerous driving practice the defensive driver has to be on guard against.
 - (ii) False. You can't excuse poor driving practice on the grounds that another driver was doing the same thing.
 - (iii) True. Although the bus obscured your vision, it does not excuse you from proceeding cautiously.
 - (iv) False. Mechanical signals are merely an aid to traffic movement. They cannot look and think. Only the driver can do that.
 - (v) True.

Mechanical signal lights at intersections are merely aids to orderly movement of traffic. If everyone understood and obeyed these signals, there would be fewer collisions. Many drivers cheat on the lights by starting up or continuing through the intersection on the amber light. The defensive driver obeys the lights, and also checks carefully to the right and the left to make sure no one is crossing against the lights before he enters the intersection.

2. Twice as safely.
3. Traffic violations, vehicle abuse, schedule delays, acts of discourtesy.
4. Defensive driving is driving to prevent collisions in spite of the incorrect actions of others and adverse conditions.
5. Your answers to this question may vary from the answers given here. If you are in doubt about yours, check with a colleague or the Course Manager.
 - (i) light: the setting sun on a winter afternoon could blind you temporarily.
 - (ii) weather: heavy snowfall reduces visibility and makes driving treacherous
 - (iii) road: a heavily rutted or potholed road can adversely affect your driving unless you slow down sufficiently
 - (iv) traffic: rush hour traffic in an urban center can be hazardous due to the volume of traffic. Everyone is also generally in a rush to get home and may not be concentrating fully on driving.

- (v) vehicle: your vehicle has not been inspected for several thousand kilometres and you notice that your brakes begin to screech when applied. This is a signal that they are worn excessively and may not respond as well as they should in a jam.
- (vi) driver: it is harvest season and you hve been up half the previous night working. It is now the afternoon run and you are feeling extremely tired.

HAZARD DETECTION

SELF-EVALUATION

Part A:

Attached are the completed forms for the eleven hazardous situations contained in the Overall Skill Check. If you had any problems or your answers differ markedly from the ones shown here, discuss yours with a colleague or the Course Manager and re-read the appropriate sections of the module.


Part B: Note to the Course Manager:

In administering the Overall Skill Check for this module, ensure that the route you have prepared is at least 20 minutes long and that there is sufficient variety to provide different types of on- and off-road hazards.

In demonstrating "commentary driving" the driver should:

- o describe briefly all relevant events happening around the bus
- o not focus on irrelevant events
- o detect potential hazards early
- o adjust his driving to compensate for potential hazards
- o perform all driving manoeuvres properly and safely.

#	TYPE OF HAZARD	USUAL AND UNUSUAL CLUES	HOW BAD IS IT?	YOUR ACTION
1	<u>LOSS OF CONTROL</u> There is a car ahead possibly driven by an intoxicated person. The car is partially out of control.	The vehicle's left wheels keep going over the centre line into oncoming lane. The car then crosses back to the right lane with a weaving motion. Car scrapes the right retaining wall and keeps going. Driver does not respond to bus horn or the blinking of the bus headlights.	Potentially serious particularly for the other driver.	<ul style="list-style-type: none"> o Slow the bus down and stay well behind the other driver. o Do not attempt to pass no matter how much he slows down.
2	<u>LACK OF COMMUNICATION</u> There is a motorcycle slowing down in front of you. The motorcyclist gives no hand signal.	You are approaching an intersection. The cyclist pulls left close to the centre line and his brake lights come on.	Not too serious provided you are being alert and defensive.	<ul style="list-style-type: none"> o Anticipate his turn and slow the bus down. o Do not attempt to go by on the cyclist's right.
3	<u>LACK OF OBSERVATION</u> A car that has passed you starts to cut back in front of you.	There is a car about 1/2 car length in front of you going 65 kmh. You are going 65 kmh. The passing car is going 70 kmh.	Very serious.	<ul style="list-style-type: none"> o Honk your horn quickly and slow the bus to widen the space between vehicles along right side of road.
4	<u>ROAD USER'S POSITION</u> You are approaching a school zone and see a policeman in the middle of the road.	You have passed a flashing yellow sign saying 25 kmh. The policeman directing traffic waves everyone to go straight. You have your turn signal on.	Not too serious.	<ul style="list-style-type: none"> o De-activate your turn signal. o Slow the bus down and be prepared to stop. o Proceed straight through as directed and detour back.

#	TYPE OF HAZARD	USUAL AND UNUSUAL CLUES	HOW BAD IS IT?	YOUR ACTION
5	<u>ROAD USER'S MOTION</u> A woman on a bicycle is travelling with traffic in the same direction you are going.	You are closing on the bicycle which is to your right. She gives a left hand signal and starts to swerve left.	Very serious.	<ul style="list-style-type: none"> o Honk your horn lightly and steer to the left edge of lane. o Slow down and be prepared to stop completely should she attempt to complete turn.
6	<u>ROAD USER'S ABILITY TO SEE</u> A child is waiting to cross the street.	The child turns his head right and left but the hood of his snow suit partially blocks his view. He is not at a crosswalk. He steps off the curb.	Very serious.	<ul style="list-style-type: none"> o Expect that he will cross in front of you and be prepared to stop. Tap your brakes to let following drivers know what is happening.
7	<u>DECISION POINTS</u> You are coming to an unmarked fork in the road.	Your route takes off to the left road in the fork. You are following a car with an out-of-province licence plate. His brake lights go on.	Not too serious but potentially serious	<ul style="list-style-type: none"> o Signal your turn but slow down and stay behind the other vehicle. Do not go around it. He may swing left at last moment.
8	<u>COMPRESSION POINTS</u> The road ahead goes from a 4-lane road into a 2-lane road.	You see a sign like this: 	Potentially hazardous if traffic is heavy.	<ul style="list-style-type: none"> o Signal your intention to move left. Check traffic beside and behind you. Move left when you have a clear opening. Cancel turn signal.

You are in the right lane.

#	TYPE OF HAZARD	USUAL AND UNUSUAL CLUES	HOW BAD IS IT?	YOUR ACTION
9	<u>TRAFFIC CONVERGENCE</u> You are on an expressway approaching an entrance ramp.	You see a MERGE sign. Several cars are stopped on the entrance ramp looking for a gap in traffic.	Potentially serious since they should not be stopped on entrance ramp.	<ul style="list-style-type: none"> o Activate your left turn signal and check to see if you can move safely to left lane. If not, slow down and be prepared to stop if necessary.
10	<u>VEHICLE OBSTRUCTIONS</u> A car that has overheated is stopped ahead in your lane on a 4-lane road.	Several cars ahead are stopped with left turn signals on, waiting to merge into the passing lane.	Potentially very serious.	<ul style="list-style-type: none"> o Activate your left signal and keep well back of the car in front of you. Merge left only when safe to do so. Be prepared for others to move quickly.
11	<u>VISIBILITY LIMITED BY TRAFFIC</u> An ambulance is approaching but you can't see it.	There is a truck behind you and a steady stream of oncoming traffic. You can hear the siren. Cars in the oncoming lane are pulling to the side of the road.	Serious.	<ul style="list-style-type: none"> o Keep scanning traffic around you. Slow the bus and move right when sure ambulance is not passing on the right. Remain there until clear.

COLLISION AVOIDANCE

SELF-EVALUATION

1. Immediately reduce your speed by braking and flash your lights/sound your horn to warn the other driver.

Continue to brake until the oncoming vehicle makes it back into his own lane.

If the oncoming car does not make it back and it is obvious that it won't, ride right off the road to the right (onto the shoulder or off the highway completely, if necessary).

2. Reduce your speed to make it easier for him to pass, particularly on the straight stretches of the road.

Steer the bus as close to the right side of your lane as possible, giving him a wide passing berth.

If the above steps do not work, and if it is practical to do so, slow down and stop, pulling completely off the road until the truck goes by.

3. If the passing car is not attempting to abort a pass, slow your bus down immediately and quickly steer along the right side of the lane.

If you see that the other driver is attempting to abort a pass, accelerate the bus to create room for him to pull in quickly.

4. Three.

5. a. false
- b. false
- c. true
- d. false
- e. true

6. Six.

- (i) vehicle ahead
- (ii) vehicle behind
- (iii) oncoming vehicle
- (iv) vehicle at intersection - or from an angle
- (v) vehicle passing
- (vi) vehicle being passed

7. The following driver was driving too closely behind another vehicle.

8. Making an error.

9. Loss of control of the vehicle.

10. The best way to drive through a curve is:

- o slow down before you enter the curve
- o on right curves, keep to the right edge of the pavement
- o on left curves, keep in the middle of your lane
- o apply power to the wheels by accelerating after you are in the curve.
This will counteract centrifugal force.

EMERGENCY DRIVING TECHNIQUES

SELF-EVALUATION

1. Pump the brakes quickly to see if you can build up enough pressure to stop the bus.

If not, downshift quickly to the lowest gear possible.

Apply the parking brake to stop the bus.

If this is not stopping the bus sufficiently, steer the bus to the right against the retaining wall and keep steering the bus toward the wall. Keep the parking brake applied. Hitting the wall is preferable to running into the bus ahead because that could cause injuries to the bus's passengers and also force the bus out into the path of oncoming traffic.

Under no circumstances should you attempt to gamble and drive into the left lane, hoping to negotiate the corner without having a collision.

2. Remove your foot from the accelerator carefully and turn the steering wheel to the right. Because you are beginning to travel uphill, the bus should slow on its own.

As the back end of the bus swings back toward the left straighten the steering wheel out carefully.

Only begin to accelerate again after your wheels have regained traction.

3. There would be a strong pull or tug on your steering to the right.

Steering: Grip the steering wheel firmly and steer the bus straight down the center of your lane. Do not attempt to steer onto the shoulder of the road until you are travelling so slowly that this will not hamper your control. If the bus begins to skid as a result of the blowout, steer the bus in the direction of the skid (see also answer #2 above).

Braking: Do not apply the brakes immediately. If possible, allow the bus to slow down on its own. However, if quicker stopping is required to avoid some hazard, pump the brake pedal with quick jabs.

Stopping: When the bus has slowed sufficiently to eliminate the danger of loss of control, activate your right turn signal and move right slowly, bringing the bus to a complete stop as far out of the lane of traffic as possible. Activate your hazard lights.

4. **Steering:** Turn your wheels in the same direction the rear of the bus is skidding. Be carefull -- don't oversteer! You'll be able to "feel" when the bus regains traction. Then straighten the wheels.

Watch out, though! Frequently a skid in one direction is followed by one in the opposite direction (often caused by oversteering while in the first skid). As the bus fishtails in the opposite direction, steer in the direction of the new skid.

Braking: Never hit the brakes during a side skid. After you feel the bus regaining traction, the best way to slow or stop the bus without causing a further skid is to pump the brakes with hard, rapid jabbing and releasing of the brakes.

COLLISION PROCEDURESSELF-EVALUATION

There are no real "right" or "wrong" answers to the situations described. There are, however, "appropriate" and "inappropriate" actions. The important thing is that you take the time to assess the situational requirements, mentally establish your priorities for action, take charge of the situation, and carry out your plan.

- (a)
1. Assess crash scene - inside and outside of bus.
 2. Confirm lack of serious injuries.
 3. Evacuate to a safe location, removing fire extinguisher and first aid kit as you leave.
 4. Reassure students and leave in the care of bus patrol member or other responsible student.
 5. Attempt to extinguish fire, if safe to do so.
 6. Mark off scene with reflectors, flares, etc.
 7. Send for police authorities.
 8. Give complete account to police.
 9. Notify school authorities, making arrangements for alternate student transportation, towing and repair services.

- (b) 1. Assess crash scene - inside and outside.
2. Confirm lack of serious injuries and move the bus out of the curve if it is possible to do so. If the bus cannot be moved, evacuate the passengers to a safe location.
3. Reassure students and leave in the care of a bus patrol member or other responsible students.
4. Mark out the scene of the collision with flares or reflectors (proper methodology is discussed later in Module 5.2).
5. Send for police authorities and give a full account of the collision to the police officer.
6. Notify school authorities, making arrangements for alternate student transportation, towing and repair services.

COLLISION PROCEDURES

- (c) 1. Stand up and give required directions to students and assistants.
2. Evacuate in quick, orderly fashion to safe location.
3. Check bus is empty.
4. Leave and join others.

The course instructor will provide feed back to you on your performance in conducting the evacuation drill.

USING EMERGENCY EQUIPMENT**NOTE TO COURSE MANAGER**

To arrange this skill check, try to have an official of your local fire department present to supervise the first scene. Given the nature of this skill check, it is recommended that it be conducted as a group session.

When evaluating a participant's performance, check the following points:

- o the person should extinguish the fire before protecting (marking off) the collision scene
- o no hesitancy is shown in accessing and using the emergency equipment
- o the equipment is handled and used in the appropriate manner
- o the fire is extinguished completely so there is no possibility of flare-up
- o the tasks are completed within the allotted time.

ASSESSMENT AND TREATMENT OF INJURIESSELF-EVALUATION

In demonstrating how you would deal with and treat the injuries in this emergency situation, you would proceed as follows:

1. Quickly assess the situation and determine the nature of the injuries as accurately as possible.
2. Begin to treat the injuries in the following order of priority:
 - (i) person whose breathing has stopped
 - (ii) student bleeding from severe cut
 - (iii) those students suffering from shock
 - (iv) those with undetermined injuries
3. Given the seriousness of the first 3 injuries, you should probably gain the assistance of uninjured students or the injured students themselves in treating these injuries, unless school division policy prohibits such action.
4. Attempt to treat the victim whose breathing has stopped within the first 2 minutes after the crash by applying mouth-to-mouth respiration on the spot.
5. The bleeding injuries should be treated by:
 - (i) having the victim lie still
 - (ii) elevating the injured portion of the body, if possible
 - (iii) applying direct, even pressure to the wound, using whatever clean material is available as a dressing
 - (iv) having the injured person take over the application of the pressure to the wound as quickly as possible (assuming consciousness)

6. Treat the shock victims:

- (i) have person lie down
- (ii) elevate feet and legs slightly
- (iii) keep person warm, but not hot
- (iv) keep person quiet and reassured

7. Persons with undertermined injuries should be kept quietly at rest and covered with blankets (over & under) or coats. Plenty of reassurance should be given.

The Course Manager will evaluate your performance to determine that all procedures are employed properly and in the correct sequence.

PROCEDURES FOR MECHANICAL BREAKDOWN

SELF-EVALUATION

Although your answer may vary, it should look something like this. Note the order of the steps taken; it's important to carry out your actions in the right order:

1. Activate 4-way hazard lights and engage the parking brake. Unless you can manoeuvre the bus (coasting) in a forward direction to the shoulder of the road, LEAVE IT WHERE IT IS.
2. Evacuate the bus following the procedures covered in Module 5.1. Ensure that everyone is out of the bus and in a safe location well away from the road.
3. Place flares or lanterns 40 paces ahead and behind the bus. Increase the distance if necessary to ensure that motorists coming around the blind corner are warned well in advance.
4. Send bus patrol or responsible student for help, weather permitting, and only if residence/telephone is nearby. Otherwise, keep everyone together and WAIT FOR HELP. You'll soon be missed.
5. Ensure all students are transported to school and the principal notified.
6. Fill out the appropriate mechanical breakdown report and repair forms and deliver to fleet supervisor or unit secretary-treasurer that same morning.

WINTER SURVIVALSELF-EVALUATION

Winter survival is a problem which demands lots of common sense. You must keep your wits about you, conserve your energy and calm students. Tell them right away that the bus is in no real danger, it will soon be missed and help will be sent.

1. STAY INSIDE AND KEEP DRY. Don't exhaust yourself trying to shovel out the bus if it is badly stuck.
2. TURN ON YOUR 4-WAY HAZARD LIGHTS to warn other motorists of your position on the road.
3. TURN OFF THE MOTOR and then run only occasionally to warm the bus. You must conserve fuel in case help doesn't come for a few hours.
4. OPEN A WINDOW SLIGHTLY to keep air circulating. If you become drowsy, turn off the engine and get some fresh air into the bus.
5. IF YOU RUN OUT OF FUEL, close all windows and stuff clothing or rags into cracks.
6. KEEP STUDENTS TALKING, singing, stamping feet etc. to maintain warmth. Make them sit close together at the front of the bus.
7. KEEP AN EYE ON THE SMALL STUDENTS to ensure they stay warm. Give the blanket or sleeping bag to these children.
8. USE THE CANDLE(S) to generate warmth in the bus.
9. BE ALERT TO CARBON MONOXIDE. AT the first sign of drowsiness, get the person to fresh air (a window), and if necessary, give mouth-to-mouth resuscitation.







This material was prepared by Alberta Transportation for use by drivers who are involved in pupil transportation.

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Private citizens can place long distance calls free of charge - Dial 0 and ask the A.G.T. Operator for Zenith 2-2333. This will connect you to the closest R.I.T.E. Centre.